ifm electronic

Operating instructions

(Ex protection related part) for M12 connectors
according to EU directive 94/9/EC annex VIII (ATEX)
group II, equipment group 3G/2D

UK

ecomat 400®

EVCXXA

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Operating instructions (safety-related part ATEX)
Remarks for safe use in hazardous areas

Functions and features

- Use in hazardous areas according to the classification
  II 3G (Group II, category 3G, apparatus for gas atmosphere).
  Complies witht the requirements of the standard EN 60079-15.
- Use in hazardous areas according to the classification
  II 2D (Group II, category 2D, apparatus for dust atmosphere).
  Complies with the requirements of the standards IEC 60079-0 and IEC 60079-31.
- EC component certificate

  BVS 08 ATEX E 109 U
- IEC Ex component certificate

  IECEx BVS 08.0041 U
- Marking

  II 3G Ex nA IIC Gc (see table Operating temperature range)

  II 2D Ex tb IIIC Db IP65/IP67

Operating temperature range	
-20...60 °C	for connection cables and jumpers with angled M12 plug and angled M12 sockets

Installation / Set-up

The M12 connectors must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of protection classes, regulations and provisions for apparatus in hazardous areas.
Check whether the classification (see "Marking" above and marking on the M12 conncector) is suitable for the application.

Installation remarks / Installation

- Adhere to the relevant national regulations and provisions.
- Avoid electrostatic charging on plastic units and cables.
- Protect the M12 connectors efficiently against damage.
- The cables must be firmly laid and effectively protected against damage.
- The relevant installation regulations must be adhered to.
- For the technical data please refer to the data sheet.
- Avoid direct radiation with high UV components (sunlight), mount the unit in a protected place.
- M12 plugs may only be opened or closed in a sufficiently clean environment.

- Connectors must always be closed with a counterpart. They may be left open in the field only briefly for servicing purposes.

Special conditions for safe operation

- The M12 connectors were tested in accordance with table 8 of EN 60079-0 / table 5 of EN 61241-0 for group II and for a low mechanical risk with an impact energy of 4 joules.
- Do not separate the connectors when energized.
- Secure the connector by tightening the nut sufficiently. Tightening torque approx. 1.2 Nm to 1.5 Nm. This tightening torque is ensured as follows:
  - Hand-fasten the coupling nut (0.4 to 0.5 Nm).
  - Then turn by 3 notches using a screwdriver across the flats 14.
- The connector conforms to the requirements for an M12 connector in EN 61076-2-101. The counterpart must also conform to this standard.
- Always refer to the operating instructions as space restrictions may not allow markings to be applied to the unit.

Maintenance / Repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.
The data sheets, the EC component certificates or IEC Ex component certificates are available from the manufacturer on request.